NEW YORK STATE MECHANIC.

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TRADES AND MANUFACTURES.

SILK MANUFACTURE.

The raw silk, before it can be used in weaving, must be twisted, or thrown, and may be converted into singles, tram, or organzine. The first is produced merely by twisting the raw silk, to give more firmness to its texture. Tram is formed by twisting together, but not very closely, two or more threads of raw silk, and usually constitutes the weft or shoot of manufactured goods. Organzine is principally used in the warp, and is formed by twisting first each individual thread, and then two or more of the threads thus twisted, with the throwing mill. The silk, when thrown, is called *hard silk*, and must be boiled in order to discharge the gum, which otherwise renders it harsh to the touch, and unfit to receive the dye. After boiling about four hours in soaped water, it is washed in clean water to discharge the soap, and is seen to have acquired that glossiness and softness of texture which forms its principal characteristic. The yarn is then ready for weaving.

Velvet (Italian, *velvuto*, shaggy) is one of the richest of silken fabrics, and has been made in Europe for several centuries. In addition to the warp and shoot of which the substance of plain goods is formed, it has a soft shag, or pile, produced by the insertion of short pieces of silk under thread doubled under the shoot, and which stand upright on its upper surface, so crowded together as entirely to conceal the interlacings of the warp and shoot. It is this pile which gives it its characteristic appearance and softness to the touch. The beauty of velvet results in a great degree, from the uniform evenness of its pile, and this depends on the perfect equality of the threads of which it is composed. The pile is inserted during the operation of weaving the warp and shoot.

Gauze is a very light, transparent fabric of silk, said to have derived its name from having been originally brought from Gaza, in Palestine.

Besides *Brocade* and *Damask*, there are numerous descriptions of silk goods, popularly known by distinctive names, though varying only in the thickness of the fabric or the quality of the material, and not at all differing in the arrangement of its interlacings. Thus the plainest mode of silk weaving takes the names of *Persian, Sarsnet, Gros de Naples, Ducapes, &c.*, of which the two first are of flimsy texture, and the two last are made of stouter and harder thrown organzine.

Satin is a twill of a peculiar description, the soft and lustrous surface of which is given by keeping a large proportion of the threads of the warp visible. When first taken out of the loom satins are somewhat flossy or rough, and they are dressed by being rolled on heated cylinders, which operation gives them their brilliant lustre.

Crape is a light and transparent article of plain weaving. It is made of raw silk, gummed and twisted in the mill, and woven without crossing. They are either crossed, that is crisped, or smooth; both states are produced by the greater or less degree of twisting, especially of the warp. This stuff was originally from Bologna, but is now manufactured in various parts of Great Britian. The most substantial fabric comes from China.

Levantine is a stout, close made and twilled silk.

Gros de Indes is made by using different shuttles, with threads of various substances for the shoot.

The process of watering silk, which gives its surface a peculiar wavy appearance, is performed by passing two pieces of silk, placed lengthwise, one on the other, between two metallic rollers; the different parts are thus subjected to different degrees of pressure, from which the wavy appearance results.

Silk is embossed by passing the plain stuff between rollers, the surfaces of which contain the desired pattern, on one cylinder raised, and on the other sunk, so that the eminences of the one coincide with the depressions in the other.

Silk also enters into the composition of several mixed fabrics, the most common of which is *bombasin*, a twilled manufacture, having its warp of silk, and its shoot of worsted.

Poplins and *lustres* are plain woven goods, with a larger proportion of silk than bombasin.

The annual value of silk manufactures in England is about sixty or seventy million dollars. The raw silk is imported to the amount of nearly twenty millions of dollars, of which one third is from the British territories in Bengal. The tariff on raw and manufactured silks was taken off in England in 1824, since which there has been a great influx of the foreign article, and a great improvement in the quality of the domestic manufacture.

The value of manufactured silks exported from France in 1824 was *one hundred million* of francs. Both France and England are supplied with a large quantity of raw silk from Italy.

We have before alluded to the attempts made at intervals to raise an interest in this business. Great numbers of mulberry trees have been planted in different parts of the Union, and attempts have been made to introduce the manufacture of silk into this country. In 1831 a small quantity of raw silk was exported, and a filature established. We were gratified, on a recent visit to New-England, to find that from Connecticut far up into New-Hampshire, many families were in the practice of rearing silk worms, and had some process of reeling the cocoons among themselves. From the experiments already made, it is evident that the business may be carried on with advantage in any climate of the United States. The *New Genesee Farmer* gives eighteen cogent reasons why the people of the United States should engage in the business of silk growing, either of which is almost sufficient of itself.

We occasionally notice instances of premiums awarded to females in the different states for their *silken* industry, which is nearly all that is published on the subject by our newspapers. They are too generally engrossed in studying the evolutions and tactics of political warfare, to bestow a thought upon any useful public measure, until they have paused to see whether the leaders of *our party* lean that way! and all is dark and uncertain which does not come from the right source; or at least of too little importance to merit attention.

Among the items of the day we notice that Miss Charlotte Mitchell, of Georgia, was recently married, and on her wedding day appeared dressed entirely in silk of her own manufacture—cap, gloves, stockings, and gown, equal to the best pongee: and that Mr. J. B. Tillinghast, of Norwich, Ohio, has 5 acres of mulberry trees, from which he contemplates feeding two millions of worms next season. This is some indication of life in the business.

We dismiss this subject, on which we have barely entered, with a fear that few if any have found sufficient interest in it to follow us thus far. In contributing a feeble voice in the cause, we are conscious of having fulfilled a duty; for, though it may be difficult at present to awaken attention to this great branch of industry, it must become a subject of attention ultimately, and the time would soon arrive if the press would take it up with energy, and spread the necessary information before the people.

ARTS AND SCIENCES.

ARCHITECTURE AND ARCHITECTS.
No. IV.

Whatever may be the opinions formed in regard to the builders of the city spoken of in connection with the tower of Belus, or in regard to their objects, the presumption is quite strong that this city continued up to the time of Nimrod, and was by him made the capital of Babylonia, and that at some period of its history it was named Babylon, the name by which it has been subsequently known; that it was situated on the banks of the Euphrates there can be no doubt, and that it received improvements and modifications from time to time, till it became one of the wonders of the world.

The objects most worthy of notice in this ancient city of Babylon, are the walls enclosing it, the two palaces, the bridge over the Euphrates, the quays, the hanging gardens, and the towers, all of which shall be briefly described; the tower of Belus, as has been described, was located in this city, but needs not be again referred to, inasmuch as it has been sufficiently described in the preceding number.

Babylon, then, was fifteen miles square, and divided into six hundred and seventy-six blocks, or squares, of about two thousand eight hundred and seventy-nine feet each, twenty-five streets of one hundred and fifty feet wide, extending through it from east to west, and twenty-four from north to south, the river occupying a strip through the centre of the city, from north to south, and between the outside tier of blocks and the walls enclosing the city, and along the quays, margins or streets of two hundred feet wide were made, so that the buildings were two hundred feet distant from the inside of the walls; there is good authority for supposing that twenty-five streets ran north and south as well as east and west, but in the diagrams given to show the manner in which the city was laid out, the river occupies the place of the centre street, making twelve streets on each side, exclusive of the four wide ones along the walls, and a division of this kind also agrees with the number of squares the city contained. It must be obvious too, that even in this division the city must have been somewhat greater in its east and west direction than in its north and south, or else the blocks not perfect squares as represented, in order to make up for the breadth of the river, and the walls and streets on its banks, which occupied more breadth than the street. It is difficult to determine this matter with precision, nor is it important, the reader will of course exercise his own judgment in relation to it. The streets extended in a direct line from one side to the other, those running the opposite direction crossing the former at right angles, a principle which has not been sufficiently observed in more modern times.

The walls which enclosed the city were three hundred and fifty feet high and eighty-seven feet thick,

and were perforated and furnished with brass gates at both ends of each street, except those forming the outside margin; the number of gates is said to have been one hundred, but according to the arrangement mentioned would be reduced to ninety-eight, fifty in the east and west ones, and forty-eight in the north and south ones. There would also be fifty gates within the city, in the two walls on the banks of the river, at the points where the streets and river intersected each other; these are the gates through which Cyrus entered with his army when he captured it and destroyed its inhabitants. It may be remarked here that there is no positive proof that these walls along the quay were of the same dimensions as those which enclosed the city, the proof extends no farther than to show that the margins of the river were protected by walls and gates, and that the latter, being left open at night, when the people were holding a celebration, the enemy gained access through them into the city.

The walls of the city are said to have contained two hundred and fifty towers, extending ten feet above them, three being placed between each two gates, one on each corner of the great square, and three between the corner ones and the gates nearest the corners, except in such portions as no such provision for defence was required, being bounded by an impassable morass, which rendered access impossible. This brief outline will be sufficient to afford very just conceptions of the magnitude of the walls, the regularity of the streets and squares, and the security of the city from attack.

The walls were built with large bricks, cemented with a bituminous cement similar to that used in constructing the tower of Belus, which has been described. It may be proper to remark that the brick work of these early times had a very imposing effect, arising from the enormous size of the bricks, which were like our blocks of cut stone at the present time, and the work when finished had the appearance of having been built with huge blocks of stone rather than with bricks; and while upon the subject of the method of making bricks by the ancients, it may be observed that it is more than probable that bituminous coal, or bitumen in some shape, formed a component part of the material of which their bricks were made—otherwise it would seem to have been impossible thoroughly to have burned bricks of the size they used; and, indeed, some writers assert that bitumen was mixed with the clay and sand used in forming their bricks, which is so much additional evidence that it was practiced, and still we find patents granted in modern times for mixing powdered coal in the clay used for bricks, and burning with coal instead of wood, as formerly practiced.

The walls of the city were compassed by a great ditch, filled with water, and the sides lined with bricks, with bridges or causeways, constructed to afford access to the gates of the city. It is said that the earth with which the bricks for building the walls were made, was taken from these ditches.

As already stated, a branch of the Euphrates ran through the city from north to south; its width, as represented by some, was six hundred and forty-one feet, and by others as four times that width; the sides were formed by walls said to be the same thickness as those enclosing the city, and furnished with brass gates at each street, and steps to descend to the water for the convenience of crossing in boats; the lining of the sides of the river is said to have extended the distance of one and a half miles each way, beyond the walls of the city. To complete the walls and other works along the banks of the river, an artificial lake of forty miles square and thirty-five feet deep, according to some, and seventy-five according to others, was made west of the city, connected with the river by means of a canal, so that the channel was laid bare by turning the water into the lake, till the works were completed. The lake and canal were preserved, that an increase of water in the river should not flow through the gates and flood the city; the water from the lake was also used for purposes of irrigation, during the dry seasons, by means of sluices constructed for that purpose.

Two canals were made some distance above the city, so that in case of danger from inundation, the water could be turned from the Euphrates into the Tigris.

The lake and canals were lined with bricks, laid in cement, and the banks of the river raised and lined in the same manner, from the canals to a distance below the city.

A bridge was thrown across the river in the centre of the city, to give a free communication from the old part of the city, which lay west of the river, to the new part, on the east side; it was built in range with the centre street, running east and west, and was about six hundred and forty feet long, according to some authorities, and thirty feet wide; but according to others, nearly four times that length. The piers and arches were built with large blocks of stone, secured together with iron chains and melted lead, the distance between the piers, twelve feet three inches; the arches formed of blocks of stone extending from pier to pier; the work was completed at the same time with the walls at the sides of the river, and while the water was drained out.

The old palace stood at the west end of the bridge, the north side of it nearly in range with the bridge, and occupied four blocks or squares, in the old part of the town, and said to have been nearly three miles and three-quarters in compass; the new one was on the opposite side of the river, in the new town, and occupied nine blocks, and was seven and a half miles in compass; the two were connected by means of a tunnel, passing under the bed of the river.

The new palace was surrounded with three walls, at some distance from each other, which, together with the walls of both palaces, were highly embellished with various pieces of sculpture, respresenting different animals, one in particular was the representation of a hunting piece, in which Semiramus is shown on horseback in the act of throwing her javelin at a leopard, and her husband Ninus piercing a lion.

The hanging gardens were in the new palace, and said to have been four hundred feet square, exhibiting several terraces, one above another, till they reached the height of the walls of the city; they were sustained by arches, one above the other, and strengthened by walls on every side, of twenty-two feet thick; the communication from the one to the other was formed by stairs ten feet wide. The different floors were formed by large flat stone sixteen by four feet, covered with reeds and bitumen, over which were laid two courses of bricks cemented, and the whole covered with thick sheets of lead, on which a sufficient thickness of good earth was laid to afford root for the largest sized trees. The temple or tower of Babel, already referred to, occupied the second block north west of the old palace.

The other buildings of this city are said to have been three and four stories high, fronting the different streets as in modern times, built with bricks and highly ornamented, but not joining each other as is the practice at the present day—the space between them is said to have been, in general, about equal to the breadth of the building itself.

It is not surprising that Babylon, which has been thus briefly described, should excite in the mind a considerable degree of astonishment, more especially among people living at that early period, every thing in and about it seems to have been conducted and formed on the largest possible scale; but it must nevertheless be admitted that, when viewed more in detail, many parts of it at least fall far short of modern art. For instance, without detracting any thing from the magnitude and elegance of their work, the beauty and correctness of their sculpture, and the richness of their gold and silver ornaments, it may with truth be said that more science and skill is displayed in constructing a single arch of the new London bridge, over the Thames, than in the whole of that over the Euphrates, and the same would result in a close comparison with many other wonders of that great city.

MECHANIC ASSOCIATIONS.

ADDRESS.

(Concluded from page 51.)

The natural world furnishes us with an analogy to these expected changes in human society. Modern geologists reveal to us an age of reptiles, at some period of remote antiquity, before the creation of man; when Saurians and Icthiosaurians, to whom our sea-serpent is a tape-worm, swarmed in the ocean; and Megatheria, to whom in magnitude the mammoth is a lamb, and in ferocity the tiger is a kitten, roamed on the shore in frightful multitudes.

The moral geologist of a future age, looking backward through a long vista of time, till he reaches the fossil remains of the period through which we are passing, will describe to the incredulous ears of his astonished countrymen, how the tremendous Saurian of war, and the more horrible Icthiosaurian of intemperance, and the mighty Megatherium of slavery, with all the extinct species of kindred reptiles of deformity and crime, swarmed in this eocene period of our moral formation, until the revolution was completed, and intellgence and Christianity swept them from the earth.

In producing this grand amelioration of the condition of our race, the mechanic interest has exerted, and is exerting, an immense influence, as one of the most prominent classes of intelligent labor.

Every occupation recognized in the business of life comprises, in a greater or less degree, an exertion of body and mind. But society is very much indebted to classes of men who do very little manual labor; and to other classes, whose mental faculties are in a very humble way called into action; while between these there is a great class, who unite theoretical knowledge with practical skill.

"In this class," says an eminent writer, "the power of man appears in its full perfection, and fits him equally to conduct, with a masterly hand, the details of ordinary business, and to contend successfully with the natural difficulties of new and hazardous situations."

This description includes the mechanic interest of the United States. Intelligence and strength, intellectual and corporeal labor, ability to conceive and execute, vigor of mind and of body, clear heads and hard hands are its characteristic distinctions.

The agency of this class in the improvement of the age, was first exerted to bring respect and honor to their occupation and themselves. How nobly they succeeded, this proud exhibition of mechanic industry, now open to public inspection, the long roll of distinguished mechanics sent to the councils of the country, and the unrivalled influence which as a class they maintain over public opinion, are trumpet-tongued witnesses.

There was a simultaneous movement for political liberty and the diffusion of knowledge. In the days of revolution, they left the work-shop for the camp. In the infancy of the constitution, they quitted for a time the calls of labor, to rock the sleeping infant in the cradle of liberty.

The mechanic interest, by a necessary movement, lent its strength to the cause of order, justice, and regular government,

> "With Atlantean shoulders, fit to bear
> The weight of mightiest monarchies."

Popular government rests mainly on the regular classes. A reciprocal energy elevates both. It is only in the degradation of these classes that they become slaves of power or ministers of anarchy, countenance revolutionary notions about property, or subvert the wholesome authority of law. As a class, they can never be poor. As a class, they can never be rich. The prayer of the pious man has been accorded to them, to be kept from poverty or riches; to possess that rational and happy competency which is the best condition for the public welfare, as it is supposed to be for personal happiness.

Unquestionably there are exceptions of splendid character in our community, and in our society; but as a general result it may be stated, that so long as a

mechanic works he cannot be poor—so long as he does nothing but work, he will not be very rich; that is, rich in comparison with the favorites of commerce, or other dealers in the main chances of life. This is that position in which men feel the necessity of government, and become attached to it.

It is the hard-earned property of industry which needs protection; the reserved fund for a rainy day; the future widow's dowry; the anticipated orphan's heritage. To these, men look with a solicitude beyond the amount of the money, and feel their security in wholesome laws, faithfully executed.

He who has two houses may possibly preserve one, in any system of agrarianism; but he who has but one is sure to lose it, when he is to take common share with the profligate or the lazy, who have nothing. It is not on the possessors of great wealth that dependence can be placed for upholding law or government, when either is in jeopardy. They have too much at hazard, are too timid, too fearful of consequences; they temporize and play off, till the opportunity has gone by. Nor in such emergency, can any dependence be placed on a class of men, who, having no stake in the community, affect to feel that

"The world is not their friend, nor the world's law."

The true conservative spirit lives in the hearts of the middling interest men, whose fortune, though moderate, is fortune to themselves and their children, earned by hard toil and patient industry, gathered by slow accumulation, and too dear to be torn from them in riot and anarchy. Such men feel, that for the common security, a republican government must be a strong government, because the standard of moral and political right is higher there than under a monarchical or aristocratic administration. They feel that men must conform to the standard, voluntarily if they will, but at any rate that they must conform to it. They feel the necessity of sustaining free institutions by the respect of the people, which is the only substitute for the compulsive operation of power.

The agency of the mechanic interest in the improvement of the age, is exerted, in its immense contribution to personal domestic comfort and national glory, and to the refinement of the public taste, by the beauty, durability, and high finish of the articles which it produces.

It is difficult to ascertain with exactness the amount of this contribution, because it enters into every department of life, and the minutest of its daily concerns. A calculation derived from the statistics prepared under the order of the legislature of Massachusetts, would give, in our population of 701,331 souls, for a part only of this contribution, eighty-four millions of dollars per annum, in mechanic labor, upon forty-two millions of dollars of capital; and by reasonable addition, for the great departments omitted, at least a sum total of more than one hundred and fifty millions of dollars of labor, on eighty-four millions of capital, for the year 1837.

But the magnificent exhibition at Quincy Hall confounds all these calculations. We feel the total inadequacy of mere money to measure its operation upon society. We see that it has annihilated the ancient distinction between the fine arts and the mechanic arts, and that civilization is itself carried on and perfected by those ingenious contributions of exquisite finish, or new design or more perfect adaptation, which refine and beautify every condition of human life. It would be impossible, and is not expected, that any detail should be given of this splendid exhibition. It has been seen and admired by upwards of fifty thousand of our fellow citizens.

Although every thing is now apparently conducted by machinery, it is to be remembered that the machine is the result of mechanic art. The philosopher, who measures the movements of the planets; the engineer, who plans new avenues upon the earth, are under equal obligations to it for the wonderful precision of their instruments; the theologian and jurist, for their typed and stereotyped books, and lithographic illustrations, and the paper, unknown to the ancients, which is ground from pulp, to a sheet fit for writing, while they are making a pen; for all that is in the chemical laboratory; and the surgeon—it makes one's blood run cold to think of it—cuts upon the living and quivering flesh of his patient within a hair-line of the seat of life, by a confident reliance on the perfection of his knife. It comes feelingly to the bosom of every man, who now, more fortunate than the luxurious Roman, enjoys the comfort of a linen shirt; and to every woman, whose wardrobe, richer than that of the voluptuous queen of Egypt, supplies her with a pair of stockings. But although it is not possible to speak in detail of this magnificent exhibition, there is one quarter of this spacious hall which it would be unpardonable not to notice; that is, the room allotted to the contributions of the mechanic apprentices. It serves to show, that the ingenuity and the industry of the fathers, are to be preserved and extended by their sons.

When it is considered that knowledge is not transmissible like property; that there is neither entail nor legacy, nor statute of distribution, that will convey genius, or learning or skill, to the coming generation, and that the fabricators of all these wonderful specimens of ingenuity must soon die, we might feel some apprehensions for the future, did we not find our young men panting to take their start in the business of life, rivalling their fathers in skill and industry, and giving promise, that in their day, they will carry to yet greater perfection, the grand machinery of civilization and improvement. In reference, however, to this interesting class, it may be permitted me respectfully to suggest, whether, while so much is done for their instruction, something should not be added for their amusement. Do we forget the homely adage of the nursery, which in humble phraseology conveys a practical truth, that "all work and no play makes Jack a dull boy?" Are we getting to be too stern, rigid, and cold in our feelings; too formal, precise and severe in the harder requisitions of duty, without reflecting that to promote cheerfulness, good humor and rational hilarity is a necessary part of every wise system of human government?

One half of the intemperance, and more than half the riots of the day, are the ebullitions of youth forcibly restrained from lawful indulgence. Young men without regular means of gratifying the inclinations of their age, which it is vain to think can be extinguished, in sports, games, exhibitions, or exercises suited to their age and time of life, finding it necessary to skulk from the public eye, whenever the mill-horse path of life is to be quitted for an hour, are almost driven into illicit indulgencies.

A more liberal system, and a better tone of public sentiment, would advance the morals, improve the minds, and nerve the bodies of the rising generation.

If the mechanic is indebted to agriculture for producing the means of subsistence, he repays the obligation by providing better implements of husbandry. The plough, the axe, and the spade, in their present state of perfection, are among the donatives of the mechanic to the yeoman; gifts of the artificer of nature's productions to the lords of the soil. The mechanic is, no doubt, largely indebted to the merchant, in whose magnificent enterprises he finds materials often for his industry, and always for his reward; but he repays this obligation, by presenting him with that noblest production of ingenuity and mechanical skill, that wonderful creation of intellect and strength, of more endurance than fabled giants, of more speed than a race-horse, and of more beauty than anything of earthly creation, almost up to the present time, unrivalled in majesty and power—a sailing ship—a contrivance of mechanic art, which broke down the barriers of nature to the enterprise of man, harnessed her elements for his coursers, and bade him, in imitation of the Divine Spirit,

"Upon the wings of mighty winds,
Come flying all abroad."

And when this imitative world of mechanic construction, freighted with treasure, and crowded with human life, is launched upon the trackless ocean,

"In shade and storm and frequent night,"

with no star for its direction, and no voice to guide it over the wilderness of waves, the mechanic's art gives to the confiding mariner a little piece of iron, no bigger than an agate stone, that with unerring fidelity points but speaks not, yet touched with such exquisite sensibility that it trembles while it turns, as if it was a young heart, whose affection hardly dare trust itself to the expression of its love; and by its side places another little imitation of life, that sleeps not, tires not, but counts every knot of his progress, and with a prophet's miraculous foresight, tells his distance from an unseen shore.

For the compass and the chronometer, in their primitive state, the world is indebted partly to science and partly to fortune; but for the perfection of these delicate instruments, which are almost endowed with reason, by the extreme precision, exactness, and beauty of their workmanship, the obligation is transferred to mechanic ingenuity and skill.

But this magnificent offering of mechanic art to the enterprise of commerce, fades before the more astonishing gift it has made, not to commerce merely, but to arts, arms, learning, morals, manners, and, indeed, to all the great interests of life, in its complicated and wonderful machinery for the operation of steam.

It is among the inventions of German literature, that an ingenious investigator of the mystery of casualty was enabled to form a gigantic human being, and endow him with life; but being wholly incapable of bestowing upon him a moral perception, he created a monster whose first movements were to destroy his creator.

Such was steam in the hands of the philosophers; and some tricks of this kind were played off by this modern Frankenstein, until the mechanic took him in hand, when a physical if not a moral restraint was imposed upon him, by the ingenious enginery in which he is confined; and although now he would be a terrible master, he is humble and obedient in his chains.

It is therefore not so much steam as the steam engine, that is working miracles; for steam was no available agent so long as it was free. And such is heaven's lightning, which already the intrepidity of mechanic art aspires to confine and control, and which it is very possible may be made subservient to the purposes of man. Some future Fulton may chain it to the ship, or the car, and Yankee impatience, not then contented with riding on the thunder-bolt, may exert itself to contrive new means of accelerating its velocity.

It is not, however, to fable that we need go for his prototype, although he outstrips, in sober reality, all former fiction, as well as truth. When Whittemore's patent for his card machine was about expiring—a contrivance of mechanical skill, which, at the time seemed as miraculous as the rod of Moses—he was advised to erect one in an antechamber of the House of Representatives of the United States, with a view of obtaining an extension of his grant. It was accordingly put in operation in the presence of many members of congress. One of the honorable body, not much inclined to admire northern men or northern manufacturing establishments, gazed at it for some time, with the utmost surprise. At length, stretching out his bony arm, he exclaimed, in his peculiar intonation—

"These Yankees have made an iron creature, with hands and fingers as delicate as a woman's, and with almost as much sense."

Whoever examines the improved steam engine will find, not fingers only, but head, heart, and limbs, a circulation of fluids as exact as the arterial system, and, seemingly, every thing that belongs to man, but his soul.

The steam engine of the mechanic is to become the pacificator of the world, by making war so obviously ruinous, and confounding victory and defeat in one general and inevitable destruction of the combatants, that there can be neither motive nor object in the contest. There can be no naval warfare, when ships of the line are driven from the ocean by steam frigates. Naval tactics, which heretofore have witched the world with noble seamanship, becomes useless before a power which takes the weather-guage from the wind, and bears up to the encounter as if Ætna and Vesuvius were spouting at each other cataracts of flame. There can be no land battle, when steam cannon shall pour their shot on the one side and the other, and annihilate both armies before they come within sound of their trumpets.

Nor is this terrible agency the only means it possesses of preserving peace. It is to bring mankind into a common brotherhood; annihilate space and time in the intercourse of human life; increase the social relations; draw closer the ties of philanthropy and benevolence; multiply common benefits, and by a power of yet unknown kindness, give to reason and religion an empire which they have but nominally possessed in the conduct of mankind.

The changes which are produced in all the relations of life by the mechanic arts, forces upon us the inquiry, whence is their impulse? From what source is their power devived? They act primarily upon the elements of nature, but these elements are always the same.

Gravitation, magnetism, steam, are precisely what they were at the creation of the world. The earth, in its successive revolutions of four thousand years, has never gained nor lost a second of time. Space, which is measured with so much exactness, and time, which is determined with such absolute precision, is each what it was before the pendulum was applied to practical use. The physical power of man varies very little from what it originally was. Yet every thing about it is in progress of change.

Whence is the cause? Who is the mighty artificer that travels over creation, and uses at his pleasure the materials of nature? MIND. THE HUMAN MIND, the only progressive and improvable agent known to us in the universe of God; that indescribable and mysterious existence, of whose nature and condition neither science nor philosophy can teach us, but whose actual being and immortal duration is assured to us by innate feeling and a sublime faith.

EMINENT MECHANICS AND ARTISTS.

SOLOMON SOUTHWICK.

BY SAML. S. RANDALL.

The mechanics of the state of New York are this week presented with the speaking lineaments of a countenance long familiar to many of them: of a man whose pride and boast it was to number himself among their class; who, for a long series of years, occupied a commanding position in the political councils of the state, and whose career affords a signal practical illustration of what may be accomplished, even under the pressure of the most discouraging obstacles, by active perseverance, untiring labor and sound and fixed moral principles. Left at the age of twelve years a destitute orphan, without friends—without resources of any kind, other than such as nature had bestowed upon him in the inappreciable blessings of a sound and vigorous constitution—he commenced the work of self-education in the stern school of adversity, and progressed step by step with an unfaltering determination and an unyielding energy, until he found himself in the highest walks of honorable usefulness—guiding the destinies of the state—wielding the truncheon of power, influence and wealth—dispensing patronage and diffusing knowledge. The history of such a man is worthy of the most careful study, developing as it does the elements of self-culture, and affording that encouragement to the indigent and friendless which may enable them to breast the storms of life, and work out its manifold problems with honor and success.

Solomon Southwick was born at Newport, R. I., on the 25th of December, 1773. His father was one of the earliest and most efficient champions in that gallant struggle for the rights of the colonists which eventuated in the war of the revolution. As the editor of the *Newport Mercury*, he fearlessly and powerfully asserted and maintained those republican doctrines which pervaded the hearts of the patriots of that day, and materially aided in hastening the eventful crisis which was destined to give birth to a free and independent nation. His well known sentiments and effective exertions in the cause of liberty, rendered him peculiarly obnoxious to the emissaries and agents of the British government; and placed under the vindictive ban of an unscrupulous and irritated tyranny, he became one of the earliest victims of oppression and power. From a condition of competency, and even of affluence, arising from his connexion with some of the best and wealthiest families of the province, and by his own industry and talents, he was speedily reduced to utter destitution and penury. Hunted down by the myrmidons of despotism, he was driven from his home and compelled to seek elsewhere a precarious shelter from the vengeance of an exasperated foe. His wife soon fell a victim to anxiety, care and physical and mental sufferings, and he survived her loss but a short period, leaving five children dependent upon the world's cold charity for the means of subsistence.

The subject of this sketch commenced his career, while yet a mere boy, as cook to a fishing company bound for Cape Cod; and after enduring for several months the innumerable hardships and privations incident to such a station, he returned to Newport and apprenticed himself to a baker in his native town. Not long afterwards, abandoning this employment, he went on board a coasting vessel in the capacity of a common sailor, where he remained until he attained his eighteenth year, when he obtained a situation as apprentice in a printing establishment in the city of New York. From thence he was transferred as a journeyman to the office of the "Albany Register," in this city, then conducted by his brother-in-law, John

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Barber, printer to the state; and soon after became a partner in that establishment. On the death of Mr. Barber in 1808, he succeeded to his interest in the paper; and in this capacity, his talents, intrepidity and energy, soon placed him at the head of the democratic party, of which the Register was the organ and champion, and enabled him for a long time to exercise an almost unlimited influence upon the political destinies of the state. He continued in charge of the Register for a period of nearly thirty years, during which time he successively held the stations of clerk of the house of assembly, clerk of the senate, sheriff of the county of Albany, manager of the state literature lottery, state printer, regent of the university, and post master of the city of Albany. After the discontinuance of the Register, he established and conducted for several years an agricultural paper, under the title of the "Plough Boy"—first under the anonymous designation of "Henry Homespun, jr.," and subsequently in his own name. At about the same period, he also became the editor of the "Christian Visitant," a periodical devoted to the interests of religion and morality, and to the refutation of infidel principles. Subsequently, he assumed the editorial charge of the "National Democrat," during which period he presented himself to the electors of the state as a candidate for governor, in opposition to the regularly nominated candidate of the democratic party, the Hon. Joseph C. Yates. During the prevalence of the anti-masonic excitement, he established and for several years conducted the "National Observer," the prominent organ of anti-masonry; and was soon after nominated as the candidate of that party for the chief magistracy, in opposition to Mr. Van Buren and the Hon. Smith Thompson, the candidates respectively of the friends of Gen. Jackson and Mr. Adams. Failing of success, however, and disgusted with the manifold vexations of political strife, he withdrew from the turbulent arena of public life, and sought in the congenial atmosphere of the domestic and social circle that happiness and peace of mind which he had failed to experience in the restless career of personal and political ambition.

His long connexion with the party interests of the day having terminated, the remainder of his life was devoted to study and contemplation, to the welcome enjoyments of the family fireside, and to the dissemination of religious, moral and intellectual truth. The morning of his life was overshadowed with heavy and threatening clouds; his noon-day sun shone with a brilliant—perhaps a too brilliant and hurtful splendor; but its evening declination was the steady, tempered and grateful reflection of a mellowed and softened light. It is to this period that we must chiefly refer those great exertions in the great field of moral and intellectual education to which we are indebted for the most conclusive proofs of the vigor, depth, compass and soundness of his mind, as well as of the comprehensive benevolence and general philanthropy for which he was so eminently distinguished. From the years 1831 to 1837, he delivered, in most of the principal towns and cities of the state, a course of lectures on the Bible, on temperance, and on self-education, which were universally admired and highly appreciated. He also published during this period, the "Letters of a Layman," under the signature of "Sherlock," addressed to Thomas Herttell, esq. of New York, chiefly on the subject of that philosophical infidelity originating with the French revolution, and which had taken deep root, particularly in the large cities and more populous places of our own country. This publication was followed by "Five Letters to Young Men, by an old man of sixty," designed to warn the rising generation against the many seductive allurements and criminalities which infest our cities and larger towns. For the last two years of his life he conducted the editorial department of the "Family Newspaper," published by his son Alfred Southwick, in this city—a weekly journal devoted to literary and miscellaneous topics—and devoted his leisure hours to a variety of literary efforts upon topics of general and local interest, theological, political, moral and miscellaneous, which it was his intention at a future period to revise and prepare for the press. But it was otherwise decreed by the all-wise dispenser of human events. Suddenly, and without any previous warning, he was arrested by the hand of death, in the midst of his usefulness and in the full maturity of his intellectual powers. On the 18th day of November, 1839, while returning in company with Mrs. Southwick from a social visit at the house of a valued friend, he was attacked by an affection of the heart, which, in about fifteen minutes, terminated fatally. His age was sixty-six.

[Concluded next week.]

A SHREWD GUESS.

A skipper who sailed a fishing schooner from Nantucket, boasted that he could tell precisely in what part of the world he was, by the appearance of his "lead," whenever he could get soundings. Being one day confined to his cabin by sickness, he directed that the lead should be brought to him for inspection. The mate being rather waggish, having greased the bottom of the lead, instead of sounding as usual, dropped the lead in some sand which had been taken as ballast from a hill side in Nantucket, and then showed it to the skipper, who instantly inquired, "did you get this by sounding?" "Yes sir," was the reply. "Then by heavens sir," continued the skipper, "Nantucket is sunk and we're now right over Tupper's hill!"

MEMORIES.

The following is a palpable hit at some of the numerous schemes adopted by modern ingenuity, with a view to avoid the beaten track, and of finding out "royal road" to knowledge.

A French Professor of the art of memory, asked his pupils "where was Joan of Arc born?" None could tell. "Well then," said the professor, "remember, she was born at Domremi, near Vancouleurs. And how will you remember this? Remember Don, the Spanish title, as we say Dom or Don Quixote; and, as for Remi, remember the name of St. Remi, Archbishop of Rheims, who consecrated King Clovis. And now, for your lessons, Stepaine, my child, where was Joan of Arc born?"—"Monsieur, she was born at Rheims, where she consecrated King Clovis."

"Poh, child; Julius, tell me who was the Archbishop of Rheims."

"Monsieur, he was Don Quixote."

ALBANY, SATURDAY, JAN. 16, 1842.

TO PATRONS IN NEW YORK.

We are under the necessity of craving a little lenity of our subscribers in the city of New York, if it happens that they do not get their papers on the day of publication. We were only last week apprised that there was any failure in the punctual delivery of the paper, other than that which arose from the difficulties of transportation at a season when the navigation was suddenly interrupted. They could not but be aware that such an event would disturb our arrangements. Their papers have always been forwarded at the earliest opportunity by Harnden's express, which is the most speedy conveyance known of in this region. They should have arrived in New York, with the exception of one week, in season for delivery on Saturday. We have made arrangements, immediately on learning that there was complaint, by which the papers will in future be delivered in New York, so that they may be distributed early on Saturday morning, the elements permitting. If there is any other cause of failure, such as negligence of carriers, &c., we shall take the earliest and most effective means to remedy the evil. Trusting that our friends will make allowances for the difficulty of managing a business so liable to be deranged, at so remote a distance, and in such a labyrinth as New York, we can assure them that the paper will be, as it has so far been, issued with the strictest punctuality in time, and forwarded with the greatest regularity the season will permit. While this is done at home, we shall endeavor to have agents and carriers attend to their departments with the same scrupulous regard to punctuality. On the opening of navigation all probability of failure in their transportation will be removed, and we shall be enabled to correct any other error with promptness.

BACK NUMBERS.

In answer to the inquiries of new subscribers who apply for back numbers, it is necessary to say that the *first* number, of which two editions were printed, is now entirely exhausted. We sent out several hundred sets of the paper last week, minus No. 1, on that account. Those who find it missing in their sets will have to wait till there are sufficient orders to warrant the expense of reprinting, when it will be forwarded to them. We are still able to furnish all subsequent numbers, though the supply is rapidly diminishing.

THE FEW vs. THE MANY.

All who have watched with care the events of the last few years are well aware that there is a dangerous tendency of wealth, and with it, as a natural consequence, of power and influence into the hands of that portion of community usually denominated—and the term is well enough understood—*the few*. The causes that have had weight in producing this concentration of wealth and power are very numerous. None, however, have been so powerful as the improper exercise, and that too with the tacit consent of the people, of the powers of the government by unworthy hands. It is not in the inefficiency, nor is it the fault of our government in the abstract; but, and we repeat it, in the improper exercise of the powers of government entrusted in the hands of the unworthy. The great struggles of party, the blind and destructive influences of party feeling, forbiding the attainment of the proper ends of government, are at the foundation of the evil. It is not till the people think less of party, act less as partisans, that this evil can be remedied. In the heat and delirium of party feeling, they elect their legislators, and under the same jaundiced influence they watch their movements. Either all acts are unequivocally condemned or extravagantly lauded; and while the people are wasting time and breath in blind devotion to the god of party, their *rulers* are often enacting laws for their own personal benefit, and greedily grasping the spoils of office. It is getting too common that *the* qualification for a candidate, and paramount to all others, is *wealth*. Wealth makes knaves, honest men; fools, wise; traitors, patriots; and felons, martyrs! He that hath wealth, has praise and *honor* lavished upon him with a profuse hand.

Perhaps the cause of the evil tendency of which we first spoke lies still deeper. Is it not in that insatiate longing for wealth, gold, which seems to act with double force in the American breast, that causes men to look with eager eyes on him who possesses it, and worship, as it were, the possessor, merely because he has in his possession the idol of their existence? Is it not the factitious lustre that hoarded gold sheds on most men who hold high stations of trust and emolument, which invests them with more than half the talent and capacity usually attributed to them?

Be the cause what it may, one thing is certain—that honors and privileges are heaped upon the rich, and that in their hands is fast tending that power which will ere long prove too great to be resisted. Monopolies are springing up around, and capitalists, rich men, are rapidly and surely grasping that *golden* sceptre which has, even here, more influence, more power, than talent, integrity or intrinsic worth. The *people* can alone remedy this growing evil; but they, with all their jealousy of rights and immunities, will not awake to the evil till the chains are too firmly riveted to be broken.

ADVICE.

We cut the following from the Waldo Signal, and would commend it to a certain portion of mechanics, viz. such as are often behind their agreement in the performance of their engagements. Happily for the mechanics, in general, in this state, that there are *so* few to whom this advice would be appropriate. We are glad there are but *few*; there should be *none*. Perhaps this may meet the eye of some one of that few; to him we say *read* and PROFIT:—"Are you a mechanic? Be punctual in your engagements, do your work faithfully, and deliver it promptly at the time promised. Honestly do your work according to agreement, and never attempt to take advantage of any informality in your obligation, where its import was well understood between you and your employer. As a class you suffer much from the want of promptitude. Let it not be so with you, but deal honestly, fairly, and properly, and success will attend your efforts."

WEST POINT FOUNDRY.

Near the obscure village of Cold Spring, in Putnam county, is situated the most extensive iron foundry in the United States. The works present a scene of activity and enterprise seldom met with. As the visitor approaches the place, he is struck with the appearance of life and the noise of business which come with force from the cluster of shops and furnaces. The columns of smoke ascending from the numerous chimneys, and the noise of the trip-hammer and machinery, and the mighty power of steam, inspire a feeling of awe and wonder in the stranger who for the first time beholds the scene.

This establishment was begun in 1816, and now employs about 400 men. It consists of an iron and brass foundry, and numerous shops, with three air furnaces and three cupolas. A gigantic trip-hammer of seven tons weight, and two tilt-hammers, one of a thousand and another of five hundred pounds, form no minor part in the Vulcanean labors of the foundry, and conspire to lend a *voice* to the scene. Enormous shafts of iron, of many tons weight, are forged here. It is said that the works admit of forging shafts two feet in diameter, and weighing more than fifteen tons! though requisition has never yet been made for so powerful an instrument. It was here that the engines, boilers and other machinery for the steam frigate Missouri, and the heavy iron work for the Mississippi, lately ordered by Congress, were manufactured. In the machine shop are twenty-eight turning lathes and three iron planing machines. Every description of machinery for steam works, of whatever power, is turned off with great despatch and in superior manner. Besides, innumerable implements are manufactured for every part of the country; the southern states they furnish with sugar mills and kettles, rice mills, and cotton presses; and other parts of the Union with saw and oil mills, hydrostatic cylinders, brass and iron ordnance, and shot and shells. It would be difficult to find any thing which does not come under their *List of Patterns*. Of course the consumption of *materiel* must be immense. Among the principal expenditures for the year 1840, were $150,000 for pig iron, $33,000 for coal, $44,500 for copper, $29,000 for bar iron, and about $15,000 for boiler iron plate. During this year they were extensively engaged in the manufacture of pipes for the Croton aqueduct, besides supplying heavy orders from the southern states and West-Indies for engines and machinery to be employed in the sugar and other business. It may also be added that they shipped to Austria complete machinery for a flouring mill, of eight run of burr stones and two water wheels, and filled a similar order for one of the British provinces. The amount of capital employed in such an establishment can be conceived by few. The expenses for a single day would furnish a very respectable capital with which to commence many kinds of business.

THE EXPORTATION OF SPECIE.

We some time since referred to the exportation of specie to meet the balance of trade *against* us in our intercourse with other countries. Since then we have met with the following statistical information on this point. It is stated in the New York Express that the exports of silver from this country, from the 24th of September, 1840, to the 31st of December, 1841, amounted to $10,278,159; of gold, the exportation during the same period of time, to $1,023,680; making a total amount of $11,300,839, which, be it remembered, embraces only the exports entered at the custom house in New York; add for other ports, and for sums not formally entered, and the amount will be increased to at least $15,000,000. This, it is but fair to suppose, is the ratio of exportation of the precious metals, of which we stand so much in need at home. Should not this fact have weight in the minds of those who so steadily and zealously oppose the plan of a protective tariff? We leave the conclusion to be drawn by our readers, well knowing that in the face of such facts there can be but one inference. By the compromise act of 1832, the duties on foreign goods were to be gradually reduced till the present year, when they were to reach their minimum. For three or four years subsequently to the passage of this act, the reduction was not so great as to have any perceptible effect. In addition to this, the country had been rapidly gaining in wealth, and the excess of imports over exports could be readily paid, without much distress to the currency of the country. After that period, its effects began to be more sensibly felt. Foreign manufacturers, stimulated by the reduction of duty, exported largely to this country. American importers endeavored to compete with them—new modes of credit were devised to keep up the ball, until the surplus wealth of the country became exhausted. A day of settlement came, and every bank in the country was bankrupt. This was five years ago. The result; the prices of every production of our soil has become ruinously low—our currency is broken down and depressed—the south and west are bankrupt. This has been attributed to an inflation of currency—to over-trading—speculation—and many other causes. But what was the true cause? The same that brought Russia to a similar position a few years ago, under her free trade system, unsupported by reciprocity with other nations.

The specie has left the country; it is drained of its life's blood, for such it is. At the few specie paying points, remnants are collected, and it is a struggle between the few specie paying banks and foreign importers, as to which shall retain the little that is left, that produces the present depression in prices, and the cramped state of our money market. "In most governments, great attention is paid to the exportation of specie. It is the *pulse* of the commercial and industrial world. If it is found leaving the country regularly, and in masses, counteracting measures are taken. Three years since, when specie was leaving England in a continued flow, what did the Bank of England do? She said, we must apply stringent measures—and she succeeded in reducing the price of cotton, then coming from her good American customers, one half—*twenty millions of dollars at a blow!* This was an unkind act towards our Southern friends—but it was done openly, and unblushingly—and simply enough, too, by straitening the money market, so that the manufacturer could not buy, or the commission merchant keep advanced the usual sum on the article itself. It was a necessary measure of self-defence—and our government should adopt an equally effective measure, to prevent our country from being utterly prostrated, by recourse to high duties on importations. Formerly, when a few ships, laden with dollars, were sent to China for silk and teas, it was matter of fear and complaint that the country was being drained of its specie. Have we grown wiser, that we now behold our silver and our gold so complacently quitting our shores, to pay for gewgaws and calicos?"

THE STATE PRISONS.

Mr. WIER, of New-York city, has already introduced a bill relating to the employment of convicts in our state prisons. That our readers may see the provisions we here print it entire It will be seen that it provides for the employment of those convicts not necessary for the manufacture of articles for their own use and comfort, in developing the mineral resources of the state; thereby relieving the mechanics of the burthen under which they have so long labored. The Sing-Sing prisoners are to be limited to the quarrying of marble, and none to be employed in manufactures only for prison consumption, and the proceeds of their labor are to be sold at auction. The bill, however, will speak for itself.

AN ACT IN RELATION TO THE STATE PRISONS.

The People of the State of New York, represented in Senate and Assembly, do enact as follows:

§ 1. No contract shall hereafter be made under or by virtue of which any of the convicts now confined, or that may hereafter be confined in either of the state prisons of this state, shall be let or hired to be employed in any kind or description of labor whatsoever.

§ 2. No convicts now confined, or that may hereafter be confined in either of the state prisons of this state, shall be taught the art or method of doing any kind or description of labor, except such as is allowed to be done in said prisons, by the subsequent sections of this act.

§ 3. The convicts to be employed in the iron, or other mines of this state, as hereafter provided for in this act, shall be employed at labor for, and during not more than hours of every judicial day.

§ 4. All female convicts now confined, or that may hereafter be confined in either of the state prisons of this state, shall be employed in the performance of such work as may be necessary for the accommodation and safe keeping of such convicts, or in the production or manufacture of articles necessary for use, or consumption in the state prisons of this state, or in the state lunatic asylum at Utica, and in no other manner.

§ 5. All male convicts now confined, or that may hereafter be confined in either of the state prisons of this state, shall be employed in the performance of such work as may be necessary for the accommodation and safe keeping of such convicts, or in the production or manufacture of articles necessary for use, or consumption in the state prisons of this state, or in the lunatic asylum at Utica, or in the repair, cleaning, alteration or enlargement of said prisons, or the appurtenances thereof, or the erection of additional buildings or appurtenances, or of new prisons, or in the breaking or quarrying of stone or marble in the rough state; or in the mining, smelting or manufacture of metal ores, as provided for in the subsequent sections of this act, and in no other manner.

§ 6. A committee, consisting of one member of the senate, and two members of the assembly, shall be appointed immediately after the passage of this act, whose duty it shall be to ascertain, with as little delay as possible, after the adjournment of the present legislature, the best location for the establishment of mining operations, either of iron or other metals, to be performed by state prison convicts, under the direction and superintendence of their proper keepers and officers, for the benefit of the state, and to obtain any other information relative thereto, and report the same as soon as practicable, to the inspectors of the state prisons of this state. The committee so appointed, shall receive respectively, for each day actually and necessarily employed, as before directed in this section of this act, the same compensation as is allowed by law to the members of the legislature, and the sum of dollars for every twenty miles travel, necessary for the accomplishment of the above named object, the same to be audited by the comptroller and paid out of the treasury.

§ 7. It shall be the duty of the inspectors of the prisons at Mount-Pleasant and Auburn, and they are hereby authorized and directed, immediately on the receipt of the necessary information from the committee appointed by the senate and assembly, as provided for in the sixth section of this act, to employ competent overseers or master workmen, who shall cause a sufficient number of convicts who are not required to fulfil the then existing legal contracts, to be employed in constructing the necessary building or buildings, and in making all necessary arrangements for conducting the business of mining, smelting and manufacture of iron or other metal ore; and they are hereby authorized to procure all necessary materials and implements, and said overseers or master workmen shall be paid respectively the same compensation as is specified to be paid to each member of the committee of the senate and assembly, appointed under the sixth section of this act, for each day actually and necessarily employed, as directed in this section of this act.

§ 8. Immediately after the completion of the necessary arrangements for conducting the business of mining, smelting and manufacture of iron or other metal ore by the convicts, they shall be distributed by the inspectors of the state prisons, according as their physical health and strength may render most proper, either at the quarry or in the mines, or in manufacturing of articles to be used in the prison, or in the state lunatic asylum at Utica, or in the manner specified in the fifth section of this act.

§ 9. The inspectors of the Mount Pleasant prison shall dispose of the marble or stone which may be quarried at said prison, at auction; notice of which shall be given in the state paper, and in one newspaper in each city in the state, for and during at least one month previous to such sale, and said inspector shall make a full return to the legislature annually, at the commencement of the session, of all the marble or stone so disposed of.

§ 10. The products of the iron or other mines which shall be worked by the convicts of the state prisons of this state, shall be sold at public auction under the direction of the agents having the charge of such mines; notice of which shall be given in the state paper, and in one newspaper in each city in the state, for and during at least one month previous to such sale, and a full return made to the legislature annually at the commencement of the session, in the same manner as provided for in the ninth section of this act, in relation to the sale of marble.

§ 11. Any inspector or agent who shall violate any of the provisions of this act, shall, upon conviction, be adjudged guilty of a misdemeanor, and shall be punished by imprisonment in a county jail, not less than three months nor more than six months, or by a fine not less than five hundred nor more than one thousand dollars, or by both such fine and imprisonment, in the discretion of the court before which such inspector or agent may be convicted.

§ 12. Nothing contained in this act shall be construed to prevent the execution of the contracts lawfully made at either of the state prisons of this state previous to the passage of this act, or the employment of the number of convicts necessary to complete such contracts during the hours and for the length of time required by such contracts respectively.

§ 13. Such parts of the Revised Statutes and laws of this state as are inconsistent with this act are hereby repealed.

§ 14. The first, second, third, fourth, fifth, sixth, ninth, eleventh, twelfth and thirteenth sections of this act shall take effect immediately on the passage of the same, and the remaining sections as early as is consistent with the provisions contained in this act.

RAIL ROAD IRON.

Six ship loads of iron rails for that part of the Baltimore and Ohio rail road extending from Harper's Ferry to Cumberland, have arrived at Baltimore from Great Britain, forming an aggregate of 2,855 tons. This is about one-third of the entire

quantity contracted for. When shall we manufacture our own rails, instead of sending our money away for them? The *bowels* of this continent are crammed with the materiel, which we have but to excavate, and the money sent abroad will pay the expenses. But who will embark in the manufacture, while corporations show a preference to the foreign article? If a judicious policy was exercised by the government, so that manufacturers were left to a competition among themselves only, forges would spring up in every part of the Union. It is believed that our resources are broad enough for a superstructure more vast than has ever yet grown up in this country; at any rate they are sufficient to make us independent of other countries.

DEGRAND'S RAIL ROAD.

P. P. F. Degrand, of Boston, is a man of very *extensive views*, as may be seen by the length and breadth of his speech at the Albany rail road dinner. At the Charlestown branch rail road dinner, the expansion of his *vista* was unbounded. He there expressed a wish to see *that* rail road extended to the *end of creation*—or unite with the Worcester rail road, which he considered as amounting to about the same thing! Perhaps he would like to establish a lottery office at the other end of it.

NATIVE TALENT.

The editor of *Vox Populi*, who does the people's talking at Lowell, is a man of great taste and discrimination. As a mark of this, only a week or two since he took one of our articles and placed it under his own editorial head as original, and such is the *force of genius* that he probably has not discovered it to this day.

ERIE COUNTY MECHANIC ASSOCIATION.

The first annual meeting of the Erie county mechanic association was held at Buffalo on the 3d inst. The committee on lectures reported that arrangements were in progress for a series of lectures before the association the present winter, and the president elect was requested to deliver the introductory. The following were elected officers for the ensuing year: O. G. Steele, president; John Newman, W. S. Levake, vice-presidents; Jesse Peck, corresponding secretary; Charles L. Emerson, recording secretary; George Jones, treasurer; C. T. Shattuck, E. Williamson, V. Hodge, A. Patchin, W. Dickerson, directors.

BOSTON ICE TRADE.

The Bostonians are driving a heavy trade in the ice business. A rail road has been constructed to a beautiful lake nearly six miles from the city, called Fresh pond, whence they take ice and ship it to those countries where they have no *domestic* ice, and are as sceptical about the phenomenon of frozen water as some of the New-York editors are about animal magnetism—that is, they can't trust the evidence of their own senses. The first ship was loaded in two days, the last week in December, by the aid of the rail road. She took about 350 tons. On one trip the cars returned in 55 minutes from the time of leaving the wharf, with 25 tons of ice. The formal celebration of the opening of the rail road took place on the 5th January.

The *first* rail road in America was established to convey *granite* from the ledges to the shipping in Boston harbor. The *latest* rail road is constructed for the transportation of *ice*. And it will be recollected that *granite* and *ice* are said, by high authority, to be the staple commodities of New England.

TRADE AND COMMERCE OF ALBANY.

The following statistics of the trade, commerce and manufactures of Albany are derived from a forthcoming work by Mr. J. Disturnell, and is presumed to be as correct as can well be, when the difficulties in the way of perfect accuracy are considered. In the item on printing however, an error occurs. There are not less than 24 publications, under as many different titles, including the weeklies and semi-weeklies published at the daily offices, instead of 17.

There are 53 commission houses; 137 wholesale houses; 35 importers; 440 retail dry goods and other stores; 612 groceries and provision stores, not included in the above; 30 lumber yards; 40 hotels and taverns; 8 banks, with a capital of $2,751,000; 4 insurance companies, with a capital of $700,000; 10 printing and publishing offices, from which issue 17 daily and other newspapers and periodicals; 20 hat, cap and fur manufacturies, producing annually over $900,000 worth of manufactured articles; 4 extensive and several minor tobacco factories; 2 morocco factories; 5 rope-walks; 15 soap and candle factories; 1 sperm and whale oil and sperm candle factory; 5 musical instrument manufactories; 15 carriage manufactories, one of which is as large as any in the Union; 9 breweries; 1 bell foundry; 33 blacksmith's shops; 2 comb manufactories; 20 copper, tin and sheet iron manufactories; 2 die cutters; 3 engraving establishments; 2 type foundries, and 1 stereotype foundry: 4 gun manufactories; 1 grate and fender factory; 5 jewelry manufactories; 1 organ builder; 2 oil cloth manufactories; 8 stove manufactories; 15 brass foundries; 2 brush manufactories; 1 Burr mill stone do.; 4 carpet do; 3 dye wood mills; 10 furnaces; 2 file cutters; 2 fire brick manufactories; 2 glue do; 3 steam sawing and planing machines; 2 lamp manufactories; 4 plaster mills; 4 plane manufactories; 6 steam engine do; 1 philosophical instrument do; 2 coach lace manufactories; 3 malting houses; 10 confectioners; 29 merchant tailors; 3 looking glass manufactories, besides many other kinds of mechanic establishments.

In addition to the manufactories enumerated in the city, the Troy and Albany Nail Factories, the most extensive works of the kind in America, are principally owned by citizens of Albany, and also an extensive satinet factory, situated on the Patroon's creek. In the year 1840, 27 steamboats and 51 tow boats plied regularly between Albany and New York and the intermediate places on the Hudson river. In the same year, 166 schooners, 202 sloops, and 1 brig arrived at Albany, the total tonnage of which was 39,016 tons. The Mohawk and Hudson Rail road, among the first roads built in the country, and connected with the Utica and Schenectady and Saratoga and Schenectady rail roads, terminates at Albany. The Albany and West Stockbridge rail road connects with the Western rail road to the state line between Massachusetts and New York, forming a continuous line of railroads from Albany to Boston. There are also 18 lines of stages running from Albany to different places. It is estimated that 1100 passengers arrive and depart daily. In 1840, 1,355,603 barrels of flour arrived at Albany by the canal, and 26,147 by the railroad; 310,752 tons of freight were cleared at the collector's office. The termination of the canals and railroads at Albany, renders it the centre of trade and transhipment, and has opened to the enterprise of her merchants and artizans an extent of country unsurpassed in its wealth and resources.

SYNOPSIS OF NEWS, ETC.

Dr. Barney says, that when he was young, his venerable teacher gave him a lesson which made a deep impression, and which he endeavored to profit by: "Never go to bed at night," he said, "till you know something that you did not know in the morning."

The famous *Stirling Iron Works* in Warwick, Orange county, have been in operation about 80 years.

The increase of exports at the port of Boston for the year 1841, is nearly one million of dollars over that of the previous year. Their exports in 1830 were upwards of five millions; in 1841, upwards of nine millions. Their greatest import was in 1836, when it was nearly twenty-six millions; in 1841, over nineteen millions.

Meetings of mechanics are called in Ohio to devise measures to relieve the mechanics from the difficulties under which they labor, on account of the state prison system in that state.

The list of vessels built at Belfast, Me., during the past year comprises 4 ships, 4 barques, 7 brigs, and 7 schooners. The aggregate tonnage is 4,946. There are also several unfinished vessels.

At a meeting held at Madison, In., for the encouragement and protection of home manufactures, the following *pledge* was adopted. "Each member of the association hereby pledges himself or herself, individually, in all their personal dealings or purchases, to give decided preference to all articles manufactured in our city or country, over all similar articles that shall *hereafter* be imported, where the price and quality of the article offer a fair competition with the imported. They also further pledge themselves, to give especial preference, by their patronage, to such individuals within our city and country as will co-operate with them in carrying out the measures and objects of the association."

Drs. E. and A. Parsons have established themselves in the city of Boston, with the intent to practise the art of embalming or preserving, for a certain period, the bodies of those deceased whose relics their friends may wish kept from decay. This is a new thing under the sun, in this section of the world. In France, the act of embalming distinguished persons is customary. The bodies of many celebrated individuals known to us on the page of history, although many years dead, appear as though they were only in a quiet slumber. The natural tendency to decomposition is seasonably arrested—and it is not at all improbable that their bodies may be preserved for centuries to come.

"We have taken some pains," says the Detroit Advertiser, "to ascertain the amount of merchandize brought to this city from Boston the last fall, and find nearly a third of it came from that city."

The valuable dwelling house and carriage factory of Mr. Wm. Burrell, in Salisbury, Herkimer Co. was destroyed by fire on 6th inst. The whole loss must be from 15 to $20,000, of which only 3 or $4000 was insured.

There are eleven corporations in the city of Lowell, with an aggregate capital of $11,000,000; fifteen churches with settled ministers; also several literary associations of a high character. The Lyceum, the Lowell Institute, the Mechanics' Association, are the principal. The Mechanics' Association have a large brick edifice, called the Mechanics' Hall. It contains lecture rooms, a reading room supplied with all the best periodicals of the day; also a library containing over two thousand volumes, and a mineral collection. There are 23 public schools. The building for the High School cost $28,000. The buildings for the Grammar Schools cost over $15,000 each. Last year this city raised $50,000 for the purpose of her schools, and about $8,000 of this was expended for teachers and fuel.

In England there is but *one* voter to every *thirty* of the population; in Scotland, only *one* to *one hundred and eight*, and in Ireland but *one* to *one hundred and eighty!* The aggregate of the population is nearly twetny-seven millions, with less than six hundred thousand of their number entitled to choose representatives in the only one of three branches of the government in which the popular voice may be heard at all.

Henry Barnwell, the last of "Paul Jones's crew," died at Upper Marion, Montgomery Co., Pa., on the 9th ult. aged 87.

The opening of the Reading rail road lately, extending from Reading to Pottsville, took place on Saturday, the 1st inst.

The Louisville Journal states that the vineyard of J. Davis, Esq. of one acre and a half in extent, produced this year 1170 gallons of the pure juice of the grape. In Europe, 400 to 500 gallons per acre is considered an extraordinary yield.

MISCELLANY.

THE GOOD OLD TIMES.

The merry, merry Autumn winds
Again are sweeping free,
But I am sad—for things are not
As once they used to be,
When all the girls wore homespun gowns,
And shoes with leather strings,
And never thought of *bishop sleeves*,
And such outrageous things.

Old father Time ha'nt changed a whit
Since I was five years old,
His Autumn coat is still the same—
A crimson mixed with gold;
He whistles just the same old tune
That he did years ago,
And he is quite as merry now,
As he was then, I know.

I used to love to spend a day
Among the forest trees,
When chestnuts, by the bushel, fell
With every passing breeze;
I reached my home at supper time,
With bag and basket full,
And found the mug of cider there,
For me to "take a pull."

And there were pleasant times at night
In very frosty weather,
When we before the blazing fire
Were seated all together;
The women with their "knitting work,"
The boys with each a book,
The dog asleep upon the hearth,
And puss within the nook.

But now I spend my autumn nights
Beside my fire alone,
I hear no more the hearty laugh
At jokes in "banter" thrown;
I gaze into my Lehigh fire,
And picture *old times* there,
Then wake, and find the scene is but
A castle in the air.

O, how I long for those good times
That once I used to know,
When I wore "neckcloths" without starch,
And tied them in a bow:
For every thing I know is changed,
In name, if not in look,
Excepting Time—the Testament,
And Webster's Spelling Book!

MEN OF LOW ESTATE, BUT LOFTY SOULS.

Heyne, the celebrated German scholar stands pre-eminent. His father was a poor weaver, who was not able to pay even at the lowest rate for his instruction in the common elements of learning. The youth had a strong desire to learn Latin; and a son of his schoolmaster consented to teach him at *four pence* a week; but Heyne was unable to pay even this pittance. One day he was sent for bread; and as he went he pondered sorrowfully on this great object of his wishes, and entered the bakery in tears. On learning the cause of his grief, the kind hearted baker promised to pay the fee required, at which Heyne says he was quite intoxicated with joy; and, as he ran ragged and barefoot through the streets, tossing the loaf of bread in the air, it slipped from his hands and rolled into the gutter. This accident and a sharp reprimand from his mother, who could not well afford such a loss, brought him to his senses. He continued his lessons for nearly two years, when his young teacher told him he had taught him all he knew. Heyne afterwards was celebrated for his great superiority in classical learning; so that at his death, it was said the university where he was professor, had lost what was its chief distinction and honor for half a century.

MIND YOUR BUSINESS.

This was an excellent exhortation, which in the days of yore we used to see stamped upon some of the old-fashioned Rhode-Island coin—"*Mind your Business.*" There was more real value to our fathers in these three words than there was in the coppers on which they stood imprinted; *more* value, because they not only admonished the holder to go to work honestly, to obtain more of them, but they were calculated to promote his health as they increased his industry, and to make him respectful, as they kept him out of other people's business. Reader! let these words, as the saying is, "stare you full in the face," whenever you sally out into the idler's list, or whenever you are on the point of inquiring into the concerns or meddling with the business of others, in which you have no interest; and, our word for it, yourself will be the gainer.

CATHEDRAL AT STRASBURG.

The especial wonder of Strasburg is the cathedral, one of the most beautiful in Europe. It was built by a family of architects, having been commenced by the father, continued by the son, and finished by the daughter. A portion of the work said to have been done by this female architect, is certainly a most extraordinary specimen of skill and care in design and execution. The whole church, in fact, is unlike any other that I ever saw. The extreme delicacy and lightness of the workmanship which decorates the front, and the beautiful spire, give this church a character altogether peculiar—a beauty belonging to itself alone. The spire is no less than 474 feet high; which surpasses the height of the great Egyptian pyramid. This great elevation is made to appear the most astonishing, from the extreme slenderness of the spire, it tapers gradually to a point, and at a distance looks like a great arrow rising out of the earth. It is said, but I cannot vouch for the truth of the assertion, that this steeple may be seen at the distance of ninety miles, from a high hill near Heidelberg.

The interior of the cathedral is not so splendid as it ought to be, to correspond with the exterior, but it is grand and imposing, and the pulpit is admirably carved in stone, and richly gilt. I ascended the spire, to enjoy the fine view which it commanded of the valley of the Rhine. I did not, however, attain the highest accessible point, it being forbidden to ascend the upper part of the spire, on account of the number of casualties of which it has been the occasion—some people having fallen from the exposed winding stairs, from mere giddiness, and others having chosen this means of killing themselves, just as in Paris they sometimes take the fatal leap from the towers of Notre Dame, or the column of the Place Vendome. The great extent of the view is the only thing remarkable in it. It comprises the flat and unvaried valley of the Rhine, for a great distance up and down, with its hundred villages and boundless fields; a line of blue mountains bounds the view east and west, (the Vorges and the Black Forest,) and the Rhine is seen winding through the valley, amid numberless little islands, as far as the eye can reach.—*Madisonian.*

DIFFERENCES.

It is remarkable that men, when they differ in any thing considerable, or which they think considerable, will be apt to differ in almost every thing else. Their differences beget contradiction. Contradiction begets heat. Heat quickly rises into resentment, rage, and ill will. Thus they differ in affections as they differ in judgment; and the contention that began in pride, ends in anger.

GOLIATH OF GATH.

The following account of this giant is extracted from Malcom's Bible Dictionary. "Goliath of Gath was 11 feet 4 inches in height; his brazen helmet weighed 15 lbs.; his target or collar, affixed between his shoulders to defend his neck, about 30; his spear was 26 feet long, and weighed 58 lbs., its head weighing 38; his sword 4; his greaves on his legs 30; and his coat of mail 136! making in all 223 lbs."

ANCIENT MEXICO.

The early accounts of Mexico by the Spanish writers were supposed to be much exaggerated. But according to Clavigero, Humbolt and Bullock, the country exhibits marks of great population, wealth, industry and improvements, for many centuries before the Spanish invasion in 1520. At that period, Mexico was a large and populous city; the palace and court of Montezuma very splendid; public buildings spacious and ornamented, there were public highways, bridges, baths, pyramids, or high place of worship; all indicative of improvement and civilization: far beyond the other tribes of Indians in America. Bullock saw a plan of the ancient city of Mexico, which shows that it was larger than the present one. The Mexicans, when first visited by the Spaniards, had a calendar more accurate even than of the Greeks and Romans: and they abounded in hieroglyphics, little inferior to those of Egypt. Mexico, according to the traditions of the people, was settled by tribes from the north, at a great distance, and several centuries before the Spanish conquest; as early as 640 of our era. They probably came from wandering tribes of Tartars, who passed to America from Asia, in early times, at Bhering's straits. They travelled south gradually, till they reached the mild and fertile regions of Anahuac, or Mexico, and there continued and grew to a great nation.

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PROSPECTUS
OF THE
NEW YORK STATE MECHANIC,
A weekly paper, devoted to the interests of Mechanics and Manufacturers.

It is proposed to publish at Albany, a weekly paper under the above title, the object of which will be to advocate the rights and privileges of that great portion of community to which it appeals for support, and to disseminate every species of information and useful knowledge adapted to its wants. The topics intended to be discussed, will embrace the useful sciences, whose applicability to the various arts and trades will be illustrated; all new scientific discoveries and mechanical inventions, which will be accompanied by an engraving when important; discussions of public measures and institutions which have a bearing upon mechanical labor; accounts of curious facts and experiments; biographies of eminent mechanics and artists; histories of manufactures and descriptions of manufacturing establishments in different sections of the country; statistics of the resources, products, &c., of manufacturing towns and districts; together with a synopsis of the most important news, and other useful and entertaining matter, from every accessible source. It will be seen that the field proposed is one capable of affording a distinguished publication, and in order to occupy it fully, efficient writers will be enlisted.

Other professions and callings have their publications, which are useful in their spheres, and it is believed that the mechanics of the State of New-York will readily perceive how great a desideratum remains to be supplied at their hands, and cheerfully extend their patronage to an undertaking, in which they have so deep an interest; a work which is intended to minister to the wants of their intellectual and political condition—eschewing the partizan politics of the day, but freely dicussing all questions and measures of political economy.

The *New-York State Mechanic* will be printed on a royal sheet, quarto, in the best style of execution, forming at the end of the year a volume of more than 400 pages of useful matter, worthy of preservation for future reference; and will be afforded at $1.50 per annum in advance, a price which will place it within the reach of the humblest artisan.

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